

Serial No. 09/902,749

REMARKS

A new substitute application has been submitted in a sincere attempt to overcome the criticisms in the Office Action of the text in the application as filed.

Applicant respectfully submits, however, that it is not necessary in this application to provide all of the identifiers indicated in Sections D. and E. of the Office Action. Applicant submits that the essential characteristics by which the plant can be distinguished are amply recited in the enclosed application.

The substitute application does contain a comparison between the instant plant and 'Cream Elite Reagan.' The bloom height is now characterized as low.

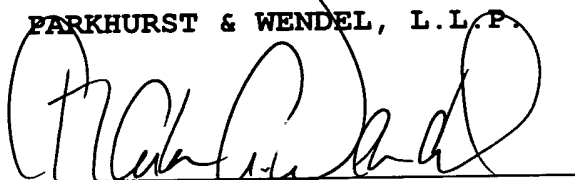
The requirement for information under 37 CFR 1.105 is acknowledged. The Examiner is informed that cuttings of the plant were first sold in the Netherlands in January 1999.

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Reconsideration of the case is earnestly solicited.

Respectfully submitted,

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Date

CAW/ch

Enclosures:


Substitute application

Markup

Attorney Docket No.: CHRE:112

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Serial  09/902,749 MARKUP

Plant

A Chrysanthemum Named 'Sunny Elite Reagan'

^

RECEIVED

DEC 17 2002

TECH CENTER 1600/2900

RELATED CULTIVARS

'Sunny Elite Reagan' is related to 'White Elite Reagan' [#] and the co-pending application of 'Cream Elite Reagan' [#]. 'Sunny Elite Reagan' and 'Cream Elite Reagan' are both natural mutants of 'White Elite Reagan'

2 pending Serial No. 09/902,750

BACKGROUND OF THE INVENTION

'Sunny Elite Reagan' is a product of a breeding and selection program which had the objective of finding color mutants of 'White Elite Reagan'. The new plant of the present invention comprises a new and distinct cultivar of chrysanthemum plant that is a natural occurring sport of a parent chrysanthemum named 'White Elite Reagan' [#]. A comparison with [Parent] ^{Plant} chrysanthemum 'White Elite Reagan' is also made in this application. The new cultivar was discovered as a whole plant mutation in April, 1999 by Rob Noodelijk in a controlled environment (greenhouse) in Rijsenhout, Holland. The first act of asexual reproduction of 'Sunny Elite Reagan' was accomplished when vegetative cuttings were taken from the initial selection in June 1999 in Rijsenhout, Holland. The new cultivar has been found to retain its distinctive characteristics through successive propagation by cuttings.

SUMMARY OF THE INVENTION

The present invention is a new and distinct variety of chrysanthemum bearing medium sized blooms with yellow ray-florets and yellow-green disc florets.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention of a new and distinct variety of chrysanthemum is shown in the accompanying drawings, the color being as nearly true as possible with color photographs of this type.

Fig. 1 shows a plant of the cultivar in full bloom.

Fig. 2 shows the various stages of bloom of the new cultivar.

Fig. 3 shows the foliage of the new cultivar.

DESCRIPTION OF THE INVENTION

This new variety of chrysanthemum is of the botanical classification [dendranthema grandiflora]. The observations and measurements were gathered from plants grown in April / May in a greenhouse in Rijsenhout, Holland in a photo-periodic controlled crop under conditions generally used in commercial practice. The greenhouse temperatures during this crop were at day-time between 18°C and 25°C and at night 20°C. After a long day period of 14 days the photo-periodic response time in this crop was 50 days. After the long day period to flowering growth retardants were applied 2 to 3 times in an average dose of 2.5 gram / liter water. No tests were done on disease or insect resistance or susceptibility. This new variety produces medium sized blooms with yellow ray-florets and yellow-green disc-florets blooming on the plant for 5 weeks. This new variety of chrysanthemum has been found to retain its distinctive characteristics throughout successive propagations however the phenotype may vary significantly with variations in environment such as light intensity and temperature. To show the phenotype as described 'Sunny Elite Reagan' can be planted without assimilation lightning (high pressure sodium lamps) between week 50 and week 40 of the next year under greenhouse conditions in Holland. With assimilation light (minimum level 2500 lux) it can be planted year round under greenhouse conditions in Holland.

Chrysanthemum morifolium

From the cultivars known to inventor the most similar existing cultivar in comparison to 'Sunny Elite Reagan' is 'White Elite Reagan' and 'Sunny Reagan (USPP 9928). When 'White Elite Reagan' and 'Sunny Elite Reagan' are being compared the following differences and similarities are noticed: The difference of ^{only} 'White Elite Reagan' and 'Sunny Elite Reagan' is the flower color ^{yellow} for which characteristics 'Sunny Elite Reagan' has been selected out of 'White Elite Reagan'. All other characteristics of 'White Elite Reagan' and 'Sunny Elite Reagan' are similar.

The differences of 'Sunny Elite Reagan' and 'Sunny Reagan' are: (1) Disc flower color and size. The flower disc of 'Sunny Elite Reagan' is more green and smaller. (2) Growth rate. The growth of 'Sunny Elite Reagan' is more vigorous. (3) Response time. The response time of 'Sunny Elite Reagan' is 3 till 4 days shorter.

The following is a description of the plant and characteristics that distinguish 'Sunny Elite Reagan' as a new and distinct variety.

The color designations are taken from the plant itself. Accordingly, any discrepancies between the color designations and the colors depicted in the photographs are due to photographic tolerances. The color chart used in this description is: The Royal Horticultural Society [color chart, edition] 1995.

Color Chart,

Table 1: Botanical Description of
CULTIVAR 'Sunny Elite Reagan'

Bud

Size	Medium, cross-section $\left[\pm \right]$ 0.0 cm height $\left[\pm \right]$ 0.8 cm
Outside Color	Yellow 9 A
Involucral bracts	2 rows, length 7 mm, width 3 mm
Involucral bracts among disc-florets	Not present
Involucral bracts color	Green 138 B

Bloom

Type	Single
Height	$\left[\text{Flat} \right]$ <u>low</u>
Size	Medium
Fully Expanded	6.0 – 7.0 cm
Number of blooms per single stem	Average of 11 – 12
Seeds	Not produced
Performance (blooming period)	26 – 28 days
Fragrance	Typical chrysanthemum

Color

Center of the flower (disc-florets)	Immature yellow-green 144 B, mature yellow-green 144 B to yellow 3 A along the border
Color of upper surface of the majority of the ray-florets	Yellow 5 A
Color of the lower surface of the majority of the ray-florets	Yellow 5 C
Tonality from Distance	A spray mum with yellow flowers and a

	yellow-green disc
Discoloration to color	Yellow 4 A
<u>Ray florets</u>	
Texture	Upper and under side smooth
Number	20 – 22
Cross-section	Flat, sometimes convex
Longitudinal axis of majority	Straight, sometimes reflexing
Length of corolla tube	Very short to short
Ray-floret length	3.5 cm
Ray-floret width	1.2 cm
Ratio length / width	Low to medium
Shape of tip	Pointed
<u>Disc florets</u>	
Disc diameter	Medium to small, 1.0 – 1.2 cm
Distribution of disc florets	Numerous, clearly visible at all stages of flowering
Type	Tubular
Color	Yellow-green 144 A
Receptacle shape	Conical raised
<u>Reproductive Organs</u>	
Stamen (present in disc florets only)	Yellow-green, thin 3 mm in length
Stamen color	Yellow-green 150 B
Pollen	Appears at a very late stage of flowering,
Pollen color	Close to yellow 12 A
Styles (present in both ray and disc florets)	Green, thin
Style color	Green 143 B
Style Length	4 mm

[Stigmas] Stigma color.

Yellow-green 144 A

Stigma Width

1 mm

Ovaries

Enclosed in calyx

Plant

Form

A spray mum meant for erect culture

Growth habit

Upright

Growth rate

Vigorous

Height

105 – 130 cm

internodes

3- 3.5 cm

Spray formation

Corymbiform (funnel-shaped with a little round to flat umbel on top)

Peduncle length

Near the top 14 cm, near the middle 21 cm, near the bottom 26 cm

Peduncle color

Green 138 B

Peduncle, attachment

Good, not brittle

Peduncle, angle with stem

Small, 30 °

Stem Color

Green 137 A

Stem Strength

Medium

Stem Brittleness

Absent

Stem Anthocyanin Coloration

Absent

Flowering Response(photo-periodic controlled crop, not natural season)

50 days

Foliage

Color

Upper side Under side

Size

Medium; length $\left[\pm \right]$ 2 cm, width $\left[\pm \right]$ 8 cm

Quantity (number per single stem)

22 – 28

Shape

Ovate

Texture upper side

[Scabrous] Glabrous

Texture under side	Slightly pubescent
Venation arrangement	Pinnate
Shape of the margin	Lobed
Shape of Base of Sinus Between Lateral Lobes	Round
Margin of Sinus Between Lateral Lobes	Diverging
Shape of Base	Truncate, sometimes asymmetrical
Apex	Mucronate

Table 2: Differences with the comparison Varieties

	'Sunny Elite Reagan'	[White] Elite Reagan'	'Sunny Reagan'
Color of the ray-florets	Yellow 5 A	[White 155 D]	Yellow 5 A
Flower disc size	1.0 – 1.2 cm	1.0 – 1.2 cm	1.5 cm
Flower disc color immature	Yellow-green 144 A	Yellow-green 144 A	Yellow-green 151 C
Growth rate	vigorous	vigorous	Strong
Peduncle, angle with stem	30°	30°	30 - 35°
Response time in days	50	49	53 – 54

Yellow 5 D

CLAIM:

A new and distinct variety of chrysanthemum plant as described and illustrated.

ABSTRACT:

A Chrysanthemum plant named 'Sunny Elite Reagan' characterized by its medium sized blooms with yellow ray-florets and yellow-green disc florets.